L 20971-66

ACCESSION NR: AP5018025

antenna. At Zimenki, the signals were received by a 15-m diameter 9° angle antenna (a block diagram of the receiver is shown). Photo records of the received signals reveal large slow (1-2 min) and fast (3-10 sec) fluctuations. The distribution of levels was close to the Rayleigh law. Because of the fluctuations, no reception of start-stop telegraph signals was possible. Morse signals at a rate of 60-100 characters/min were received correctly, as well as 8-times-delayed speech signals. Only large-detail facsimile transmission proved possible. The signals via the Moon were of lower quality. "The authors wish to thank G. G. Getmantsey, Ye. A. Benediktov, and N. A. Mityakov for good scientific organization of the experiment." Orig. art. has: 7 figures and 3 formulas.

ASSOCIATION:

none

SUBMITTED: 10Oct64

Oct64 ENGL: 00

SUB CODE: EC. SV. AA

NO REF SOV: 001

OTHER: 000

Card 2/2 71/9 S

ACC NR: AP6027528 SOURCE CODE: UR/0108/66/021/005/0030/0038

AUTHOR: Afanas'yev, Yu. A. (Active member); Kantor, L. Ya. (Active member)

ORG: Scientific and Technical Society of Radio Engineering and Electrocommunication im. A. S. Popov (Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi)

TITLE: Compensation of the control circuit in an FM receiver with a tracking filter

SOURCE: Radiotekhnika, v. 21, no. 5, 1966, 30-38

TOPIC TAGS: im receiver, radio receiver

ABSTRACT: The stability of a closed tracking-filter system is analyzed by using conventional feedback techniques and the frequency characteristic of an open coupling loop. The feedback in such a loop occurs through a phase modulation of

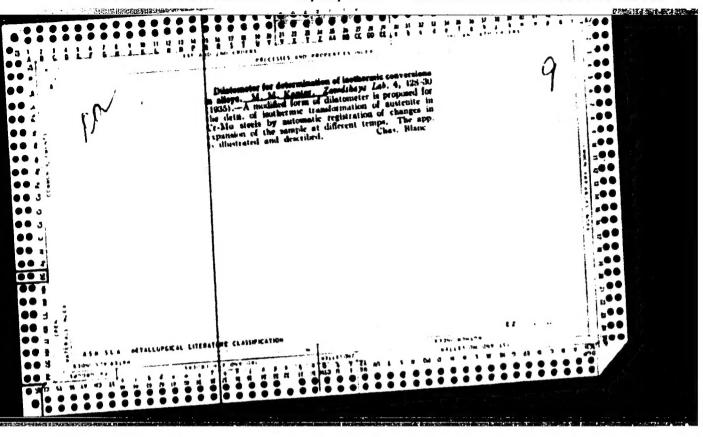
Card 1/2 UDC: 621.396.621

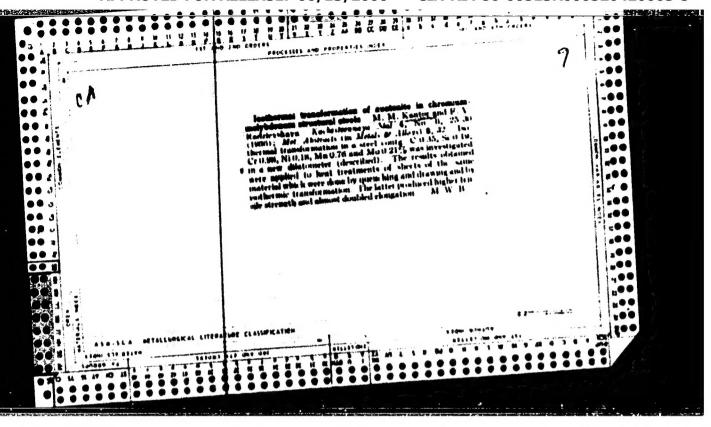
ACC NR: AP6027528

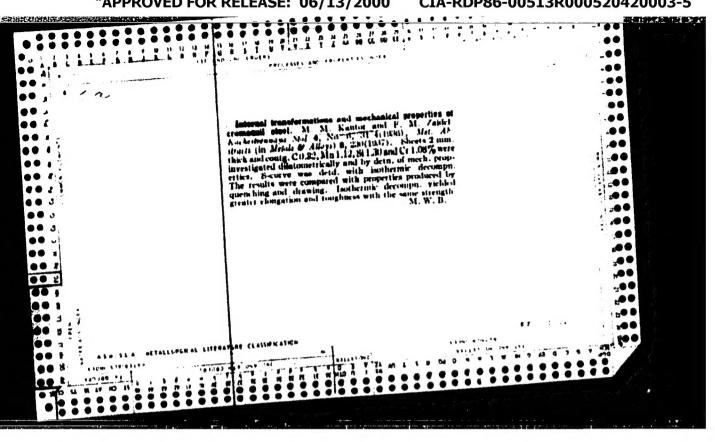
the carrier of received signal in the tracking filter. It is found that: (1) The overcontrol, $K \gg 1$, as a means for creating an abrupt drop in the equivalent frequency characteristic, in a tracking-filter-type receiver, is practically impossible because of the circuit instability; with K < 1, the receiver is always stable; (2) In broadband small-distortion systems, the tracking-filter-type receiver would require a compensation of the control-channel frequency characteristic far beyond its working band; an expedient shape of the frequency-characteristic flank is recommended; (3) The formulas and curves supplied in the article permit calculating the tolerable compression of the tracking-filter band on the basis of specified signal parameters, receiver performance, and control-channel frequency characteristic; (4) So far as the compensation is concerned, the tracking-filter receiver has no advantage over — indeed, it is even inferior to — the frequency-feedback-type receiver. Orig. art. has: 8 figures and 18 formulas.

SUB CODE: 09 / SUBM DATE: 27Feb64 / ORIG REF: 004 / OTH REF: 002

Card 2/2







"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000520420003-5

KANTOR, M.M.

Metody izucheniia prevrashchenii v stali. Moskva, Mashgiz, 1950. 186 p. illus.

Bibliography: p. 183-(185)

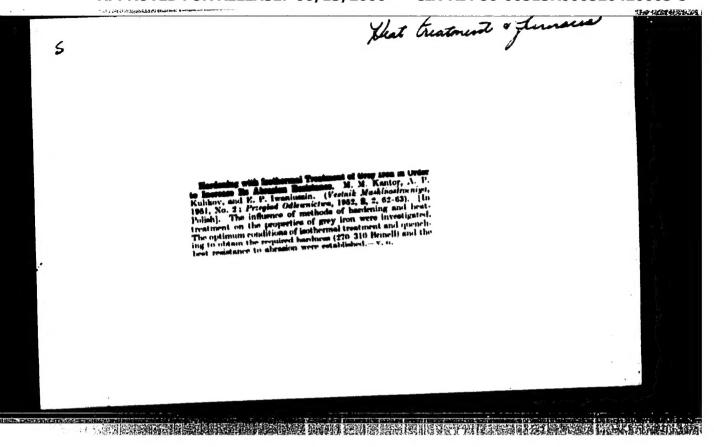
Methods of studying transformations in steel

DLC: TA473.K3

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000520420003-5







KANTOR, M.N., kandidat tekhnicheskikh nauk; OL'SHEVSKIY, A.A., inzhener.

Increasing the operating qualities of brake shoes. Zhel,dor,transp.
(MLRA 10:9)

(Railroads--Brakes)

SERPIX, N.M., insh.; KANTOR, M.M., dots.

Increasing the wear resistance of soil-sutting blades. Stroi.
i dor. mashinestr. no.4:13-34 Ap '58. (MIRA 11:4)

(Road machinery)

Investigating brake shoes of railroad care. Trudy BITM no.17:
159-168 '57. (MIRA 11:10)
(Railroads--Gars) (Railroads--Brakes)

Serpik, N. M., Engineer and Kantor, M.M., Candidate of 129-58-7-11/17 AUTHORS: Technical Sciences

TITLE: Effect. . of Heat Treatment on the Wear Resistance of Steel in Soil (Vliyaniye termicheskoy obrabotki na

iznosostoykost stali v gruntovoy masse)

PERIODICAL: Metallovedeniye 1 Obrabotka Metallov, 1958, Nr 7, pp 46-50 (USSR)

ABSTRACT: The authors investigated the wear resistance of various steels in soil as a function of the composition, the structure and the type of heat treatment, including isothermal heat treatment which up to now is not being used for components of earth working machinery. Isothermal heat treatment at certain temperatures ensures the formation of more uniform structures of carbide-ferrite mixtures with smaller quantities of ultra-microscopic cracks which should result in an increased wear resistance, compared with components subjected to ordinary hardening and subsequent tempering for otherwise equal hardness. The compositions of the investigated (seven) steels are entered in Table 1, p.47; the average values of the wear resistance of these steels as a function of the applied

Card 1/2

Effect of Heat Treatment on the Wear Resistance of Steel in Soil

heat treatment are entered in Table 2, p.48. were carried out on a specially designed test stand in which the specimens were subjected to wear under conditions which closely resemble those in practical operation. On the basis of the results the authorsconclude that hardness alone is not an adequate indication of the wear resistance of steel, since the conditions of heat treatment and the structure of the metal also play an important role. For the investigated steels isothermal heat treatment ensures a higher wear resistance than hardening followed by tempering. Maximum wear resistance was obtained for the steel U12 after isothermal heat treatment for producing acicular troostite with excess carbides. The wear resistance of this steel was 1.5 times as high as of ploughshare's steel heat treated to the same hardness by standard procedure.

Card 2/2 There are 4 figures and 2 tables,

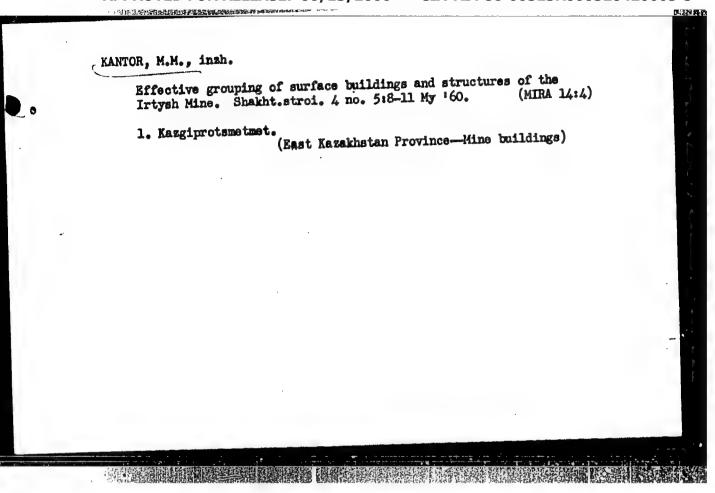
ASSOCIATION: Bryanskiy institut transportnogo mashinostroyeniya (Bryansk Institute of Transport-Machinery Construction)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000520420003-5"

KANTOR, M.M., kand.tekhn.nauk; SERPIK, M.M., inzh.; VENTSKOVSKIY, Z.L.,
inzh.; MERKULOVICH, V.A., inzh.

Investigating causes of wear of transmission gear boxes of
the D-265 motor grader. Stroi.1 dor.manhinostr. 4 no.12:
17-19 D '59.

(Read mehimery--Transmission devices)



SERPIK, N.M.; KANTOR, M.M.

Effect of chromium on the mechanical properties of improved steel. Metalloved. i term. obr. met. no.5:28-29 My 164. (MIRA 17:6)

l. Byranskiy institut transportnogo mashinostroyeniya.

SERPIK, N.M.; KANTOR, M.M.

Cast iron resistance to abrasive wear. Metalleved. i term. obr. met. no.7:49-51 J1 164. (MIRA 17:11)

1. Bryanskiy institut transportnogo mashinostroyeniya.

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000520420003-5

L 15489-63 EMP(q)/EMT(m)/SDS AFFTC/ASD Pad JD ACCESSION NR: AR3003754 S/0137/63/000/C05/I058/I058

SOURCE: RZh. Metallurgiya, Abs. 51316

58

AUTHOR: Kantor, H. H., Serpik, N. H.

TITLE: Investigation of chromium steels for their replacement of scarce chromium-nickel steels

CITED SOURCE: Tr. Bryanskogo in-ta transp. mashinostr., vy*p. 19, 1961, 294-300

TOPIC TAGS: chromium steel, hardness, viscosity temporing

TRANSLATION: The influence of the Crival C content on a, and the hardness of the steel after quenching with high tempering (T) was investigated on 16 steels of various compositions. The steels contained 0.21-0.88\$ C, 0.23-0.51\$ Kn. 0.14-0.52\$ Si, 1.10-4.08\$ Cr. 0.017-0.43\$ S, and 0.014-0.028\$ P. T was performed at 500, 600, and 700°. It was established that chronium steels yield to carbon Cr_Nivateels with respect to ak only at T temperatures of 550-650°. In the case of T at 700°, the former steels surpass the latter both with respect to hardness and with respect to viscosity. Moreover, the higher the C content in

Cord 1/2

L 15489-63 ACCESSION NR: AR3003754

0

chromium steels, the greater the effect of elloying with Cr. For example, when the Cr content is increased from 0 to 3.5%, ak increases from 16.6 to 20 kg-ut/cm² for steel with 0.35% C. from 9.2 to 18 kg-wt/cm² for steel with 0.6%.C. and from 4.4 to 11.5 kg-wt/cm² for steel with 0.85% C. Hg for these steels changes from 183 to 220, from 166 to 315, and from 230 to 283, respectively. The data obtained indicate that high strength and ak can be achieved in steel alloyed with Cr by increasing the T temperature after quenching to 700°. A. Sobolev.

DATE ACQ: 21 Jun 63

SUB CODE: ML

ENCL: 00

Card 2/2

SERPIK, N.M.; KANTOR, M.M.

Investigating the wear of steels by granular abrasives.

Tren. 1 izn. v mash. no.19:29-51 '64. (MIRA 18:3)

EEKERMAN, F.A.; KANTOR, M.M.; SERPIK, N.M.; KUGEL', R.V.

Low-alloy steel for tractor track units. Lit. proizv. no.9:1-2 S '64.

(MIRA 18:10)

BEKERMAN, F.A., insh.; KANTOR, M.M., prof.; SERPIK, N.M., kand.tekhn.nauk; ROMASHOV, B.A., insh.

Studying a new brand of steel for the T-140 tractor track. Trakt. i sel'khosmash. mo.9:43 S *65. (MIRA 18:10)

1. Beshitskiy staleliteynyy saved (for Bekerman). 2. Bryanskiy institut transportnogo mashinostroyeniya (for Kantor, Serpik). 3. Bryanskiy avtomobil'nyy saved (for Romashov).

LANDA, V.A.; KANTOR, M.M.; BAYKOV, V.A.

X-ray diffraction control of the quality of surface grinding and sharpening of a tool made of high-speed steel. Zav. lab. 30 no.61731-732: 64 (MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy instrumental'nyy institut i zavod "Freser".

CIA-RDP86-00513R000520420003-5 "APPROVED FOR RELEASE: 06/13/2000 IJP(c) MINIS EWT(m)/ENA(d)/ENP(t)/ENP(z)/EMP(b) SOURCE CODE: UR/0343/65/000/009/0043/0043 ACC NR. AP6000041 AUTHOR: Bekerman, F.A. (Engineer); Kantor, M.M. (Professor); Serpik, N.M. (Candidate of technical sciences); Romashov, B.A. (Engineer) gulasi. ORG: [Bekerman] Bezhitak Steel Mill (Bezhitakiy staleliteynyy zavod); [Kantor, Serpik] Bryansk Institute of Transport Machinery Building (Bryanskiy institut transportnogo mashino-Stroyeniya); [Romashov] Bryansk Automobile Plant (Bryanskiy avtomobil'nyy zavod) TITLE: Investigation of a new brand of steel for tracks of T-140 tractors SOURCE: Traktory i sel'khozmashiny, no. 9, 1965, 43 TOPIC TAGS: steel, tracked vehicle, high alloy steel, vehicle component, CHPANCAL COMPOSITION, CARCON STEEL, SOLIO MECHANICAL PROPERTY T. 140 TEACHED FEHICLE, 19 K & GST ABSTRACT: The Bezhitsk Steel Mill (Bezhitskiy staleliteynyy zavod), Braynsk Institute of Transport Machinery Building (Braynskiy institut transport Machinery Building Building (Braynskiy institut transport Machinery Building Building Building (Braynskiy institut transport Building B 0 Transport Machinery Building (Bryanskiy institut transportnogo mashinostroyoniya), and Bryansk Automobile Plant (Bryanskiy avtozavod) have conducted a study aiming to replace the high-alloy and expensive KDLVT steel for tracks of T-140 tractors with either 20KhG2ST or 18KhGST steel. The chemical compositions of the two steels investigated are given in Table 1 (in %). The 20KhG2ST steel was chosen over the 18KhGST steel because a high carbon content leads to a reduction in the impact strength of the steel, and test melts with a high magnesium content showed cracks when the castings were hammered out of their molds. It is noted that UDC: 669, 14, 018;629, 11, 01, 012, 67 Z 1/2 Card 2/2

L 24798-66 EWT(m)/T/EWP(t) IJP(c) JD/JG ACC NR: AP6011661 SOURCE CODE: UR/0020/66/167/003/0635/0636 AUTHOR: Ageyev, N. V. (Corresponding member); Ignatov, D. V.; Kantor, H. H. ORG: Institute of Metallurgy im. A. A. Baykov (Institut metallurgii) TITLE: Electron microscopic and microdiffraction analysis of nonmetallic inclusions in molybdenum and its alloys (2) SOURCE: AN SSSR. Doklady, v. 167, no. 3, 1966, 635-636, and insert facing p. 636 TOPIC TAGS: molybdenum, molybdenum alloy, alloy inclusion, nonmetallic inclusion; electron beam melted alloy ABSTRACT: The electron microscope is used for studying nonmetallic inclusions in molybdenum and its alloys melted by various methods. The phase composition and distribution of the inclusions were determined in specimens of molybdenum produced by electron-beam melting and in molybdenum alloys containing carbon (0.003-0.021%), titanium (0.02-0.3%) and zirconium (0.01-0.15%), produced by arc melting, and also by fusion melting. The specimens were studied in the cast, deformed and annealed states. The method used for producing the replicas is briefly described. Photomicrographs and diffraction patterns show that the inclusions consist basically Card 1/2 UDC: 537.533.35:548.4:669.28

L 24798-66

ACC NR: AP6011661 ...

of Mo₂C molybdenum carbide. This is probably due to the melting conditions and heat treatment of the specimens. The electron-beam melting and annealing were done in a vacuum of 10⁻⁴-10⁻⁵ Hg mm. Oil vapor diffusion pumps were used for producing the vacuum. Apparently the main residual gas consists of the oil vapors which decomposes to form carbon. This carbon diffuses into the metal and forms carbides. The residual gas in this case does not oxidize molybdenum and tungsten as is the case for several other metals (e.g. Al, Ti, Zr, Fe etc.). Molybdenum and tungsten oxides are apparently unstable under these conditions while their carbides are highly stable. Orig. art. has: 3 figures, 1 table.

SUB CODE: 11/ SUBM DATE: 28Aug65/ ORIG REF: 004/ OTH REF: 004/ ATD PRESS: 4250

Card 2/2 9

"APPROVED FOR RELEASE: 06/13/2000 CIA-RI

CIA-RDP86-00513R000520420003-5

VOYTOVICH, S.A., inzh.; KANTOR, M.Ya., inzh.

Erecting a reinforced-concrete frame during the reconstruction of the Yaroslav Station in Moscow. Transp. stroi. 14 no.4:27-29 Ap '64. (MIRA 17:9)

KANTOR, M.Ya.; VOYTOVICH, S.A.

Concreting domes and shells by wet guniting. Transp. stroi. 14 no.1:29-31 Ja *64. (MIRA 17:8)

1. Glavnyy tekhnolog tresta Moselektrotyagstroy (for Kantor).

KANTOR, M. Z.

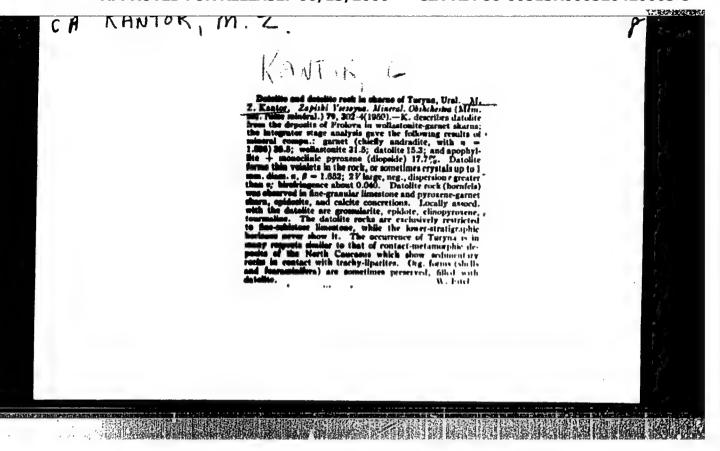
Cand Geolog-Meneralog Sci

Dissertation: "Scarns of the Tura and Auerbakh Deposits."

11 March 49

Inst of Geological Sciences, Acad Sci USSR

SO Vecheryaya Moskva Sum 71



KANTOR, M. Z.

USSR/Cosmochemistry - Geochemistry. Hydrochemistry.

D.

Abs Jour

: Ref Zhur - Khimiya, No 9, 1957, 30381

Author

: Kantor, M.Z.

Inst

: Department of Matural Sciences, Academy of Sciences

Tadzhik 88R

Title

: Carnets of Tur'inskiy Deposits in the Urals

Orig Pub

: Izv. Otd. yestestv. nauk AN TedzhSSR, 1956, 15, 9-23

Abst

: Description of three varieties of garnet found in the skarn zones of the above-stated deposits. 1. Grossularite -- in monomineral grossularite skarn in the form of plagioclase pseudomorphoses; replaced by epidote, less frequently by calcite, quartz, chlorite. Spectroscopic composition: Y and Ti -- faint lines, Ga, Cr, Be and Zr -- traces. 2. Intermediate difference grossularite - andradite (15-75% andradite) -- in plagioclase, pyroxene and calcite of limestone: replaced by epidote, calcite, chlorite and quartz. Chemical composition

Card 1/2

USSR/Cosmochemistry - Geochemistry. Hydrochemistry.

D.

are absent.

Abs Jour : Ref Zhur - Khimiya, No 9, 1957, 30381

(in \$): 8i0₂ 37.92, Ti0₂ 0.45, Al₂0₃ 12.73, Fe₂0₃ 8.37, Fe 1.43, MnO 0.53, CaO 2.36, MgO 31.93, H₂0+0.58, H₂0-0.28, other extraneous admixtures 3.62, S 0.04, total 100.24; K₂0, Ha₂0 and P₂0₅ are absent; mineral from endoskarns contains increased amounts of Ti and V. Andradite replaces callite of limestone, salite and minerals of porphyrite; is replaced by magnetite, salite, quartz, chlorite, hematite, pyrite, chalcopyrite. Limits of chemical composition of three specimens (in \$): Si0₂ 35.02-36.0, Ti0₂ up to 0.08, Al₂0₃ 0.06-0.75, Fe₂0₃

29.87-30.44, Fe0 0.14-0.31, Man 0.22-0.32, Mg0 0.21-0.50,

CaO 32.15-32-64, Ma_2O+K_2O 0.23 (one determination), H_2O^+ none (one determination), H_2O^+ 0.20 (one determination), P_2O_5 up to 0.10, other extraneous admixtures 0.31-0.40; and radites of endoskarns contain moderate lines of V and faint of Ti, in exoskarns these elements

Card 2/2

Wollastonite rocks in Morthern Tajikistan and the possibilities
for their practical utilisation. Dokl. AN Tadsh.SSR no.15:19-24
156. (MLRA 9:10)

1. Institut geologii AN Tadshikskoy SSR. Predstavleno chlenomkorrespondentom AN Tadshikskoy SSR.

(Tajikistan-Wollastonite)

KANTOK, 14.2.

USSR/Cosmochemistry - Geochemistry. Hydrochemistry

D.

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4155

Author

Inst

: Academy of Sciences Tadzhik SSR Inst. Meslegy

Title

: Discovery of Datolite in Central Asia

Orig Pub

: Dokl. TadzhSSR, 1956, No 15, 25-26

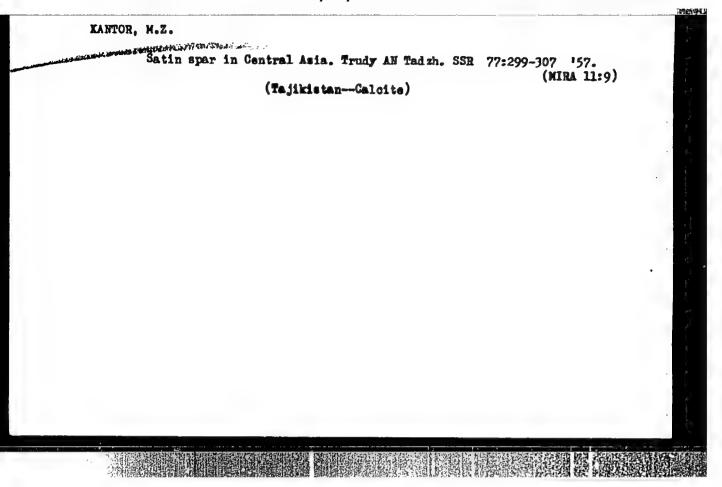
Abstract

In sections of pyroxene-wollastinitic and wollastonitic skarn, of the 1954 materials, collected at a nameless polymetallic deposit of Northern Tadzhikistan, datolite was discovered for the first time in Central Asia. The skarnic zone extends along the contact of Lower Carboniferous limestones with late Varissic syenite-diorites. Therein the datolite replaces to almost one half the wollastonite and clinopyroxene. Spectral analysis of the rock revealed very strong lines of Si, Ca and Mg, strong lines of Fe and Mn, medium of Al, Pb and Zn, faint lines of Ti and Sb and traces of Ag, Cu and Ni;

Card 1/2

- 46 -

CIA-RDP86-00513R0005



KANTOR, M.Z.

Discovery of seiirigite. Dokl. AN Tadsh. SSR 1 no.3:13-21 '58 (MIRA 13:3)

1. Institut geologii AN Tadshikskoy SSR. Predstavleno chlenom-korrespondentom AN Tadshikskoy SSR R.B. Baratovym.

(Karamasar Mountains--Scheelite)

KANTOR, M.Z.

Research methods in prospecting for boron deposits in Tajikistan.
Trudy AN Tadzh.SSR 104 no.1:149-157 159. (MIRA 15:4)

1. Institut geologii AN Tadahikskoy SSR.

(Tajikistan-Boron) (Prospecting)

KANTOR, M.2.

Characteristics of some carbonates of the Dzhangalyk skarn-complex metal deposits (western Karamazar). Izv.vys.ucheb.zav.; geol. i razv. 7 no.3:61-69 Mr *64. (MIRA 18:3)

l. Laboratoriya Chitinskogo filiala TSentral'nogo nauchno-issledo-vatel'skogo gornorazvedochnogo instituta tsvetnykh, redkikh i blagorodnykh metallov, Chita.

,				2.3								-		1266
KAN	TOI	7,	N.	(4)										C)
	*	304/5409	Byuro	opyta raboty la on Vacuum be Refractory . 600 copies	Sponsoring Agency: Gosudararvannyy seyunnyy Ordena Lanina i Ordena Tradevoso Franceso Znameni zavod. Byuro tekhnichsakoy informatsii.	r (general	POSE: This collection of articles is intended for technical personnel engaged in vacuum engineating. EMCE: The bookler contains articles which describe the application of vacuum techniques in various wetaliurgical processes, some tonn of vacuum techniques in various wetaliurgical processes, some suchods of regulating the gaseous content of gas-filled tubes, and other uses made of vacuum techniques. No personalities are mantioned. References accompany most of the articles.	Cor CONTENTS: Vasil'yev, V.I., V.P. Kirsanov, M.S. Levchak, and I.S. Marshak. Concerning the Fulverization of Cathodes in Tubular Cas-Dis- charge Pulse Tubes	le Method	d Tube 74	s of the	JP/dfk/mas	₹ 9 -€	10 ATV 10
		DITATION	Lenina zavod.	vyp. 26. Is ion of Material xperience of the c. 1960. 36 p	nanyy Ordena Le puro eskhaiches	Chief Engines Hairov, and B. He. Larionov.	icles is intended for technical mainmenting. articles which describe the app articus extalurgical processes case content of gas-filled tube haiques. No personalities are most of the articles.	S. Levchuk, and thodes in Tubul	ss-Spectrometri	s-Spectrometrii tage Gas-Fille	Cases by Maan			
		PHASE I BOOK EXPLOITATION	soyuznyy ordena Lenina zavod.	unik materialov po vakuamnoy tekhnike, vyp. 26. Iz opyta- odala tugoplavkikh metallov (Collection of Materials on V Engineering, no. 26. From the Work Experience of the Refr Matala Section) Moscow, Gosenergoladat, 1960. 86 p. 600	retvernyy acyu	R.A. Milender, Factory Chief Engineer (general, Alakasadrov, V.D. Wladialtov, and B.I. Korolev; Httsyn; Tech. Ed.: G. Ve. Larionov.	of articles in acum engineer acains article ues in various the gaseous co uum techniques company most o	. Kirsamov, M.: rization of Ca	Lania, V.A. Application of the Mass-Spectrometric Method for the Investigation of Cases Filling the Devices	Rantor, M.M., and V.A. Lanis. Mass-Spectromatric Investigation of Gases in Migh-Voltage Gas-Filled Tube Rectifiers	Kotlik, L.L. Spectral Analysis of Geses by Manns of the Photoelectric Recording of Spectra	ongress		
		PILA	cow. Gosudarstvennyy soyu cekhalcheskoy informatsid-	ialov po vako oplavkikh met E. no. 24. F :tion) Moscov,	gency: Gosuda Krasnogo Znas	Editorial Staff: R.A. Wilende editing), A.G. Aleksandrov, Ed.: T.L. Egittsyn; Tech.	1902: This collection of articles personnel engaged in vacuum engine EMCE: The booklet contains articles on of vacuum rechniques in various of regulating the Sasous mether uses made of vacuum rechnique tioned. References eccompany most tioned.	OF CONTENTS: Vasil'yev, V.I., V.P. Concerning the Fulver charge Pulse Tubes	V.A. Applica Trvestigation	R.M., and V Errion of Ges.	L.L. Spectrie Record	Library of Congress		
			Moscow. Gosu cekhalches	Shornik mater ordela tug Engineerir Hetals Sec printed.	Sponsoring A	Editorial St. editing), gd.: I.L	PORPOSE: This personnel. COVERACE: The cion of va- cion of va-	4. Vasil'y Concern charge	5. Lanie, for the	6. Kantor, M. Investigat Rectifiers	7. Kotlik, Photoel	AVAILABLE:	Card 3/3	

"Silvery fissure" in Al8 alloy. Lit.proisv. no.6:16-17 \$ '54.

(Aluminum alloys--Testing) (MIRA 7:10)

KANTOR, P. B.

Disjectric properties of formsmide. G. D. Burdun and P. B. Kantor. Doklady Akad. Nauk S.S.R. 67, 986-8 (1949).—The dielec. const. e of HCONH, at 20 = 1", inwave lengths \(\text{in} = 1-5 \) m., was detd. by the Drude-Coolidge method, to be 109 = 1.5. By the absence of dispersion in this range, this is the static value. Measurements of the dispersion of the real (e') and the imaginary part (e') h gave (selected points), \(\text{k} = 501.0, 308.0, 101.0, 41.0, 8.4, 6.1, 3.2, 1.6 \) cm., \(e' = 110.5, 108.0, 110.0, 107.9, 77.7, 58.0, 37.2, 13.5, \(e' = 2.4, 4.9, 8.0, 21.0, 44.4, 50.0 \) (max.), \(43.0, 34.0. \) From measurements in dil. soln. (mole fraction 0.2 to 0.0065) in dioxane, the polarization—P_m = 207.2 ca., and the dipole moment = 3.0 D., close to Zahn's (G.A. 26, 5803) value for the vapor (3.2). The relaxation time, from the anomalous dispersion, is 0.9 \times 10^{-18} sec.; from the anomalous absorption in dil. \(\text{tol.} \). Then

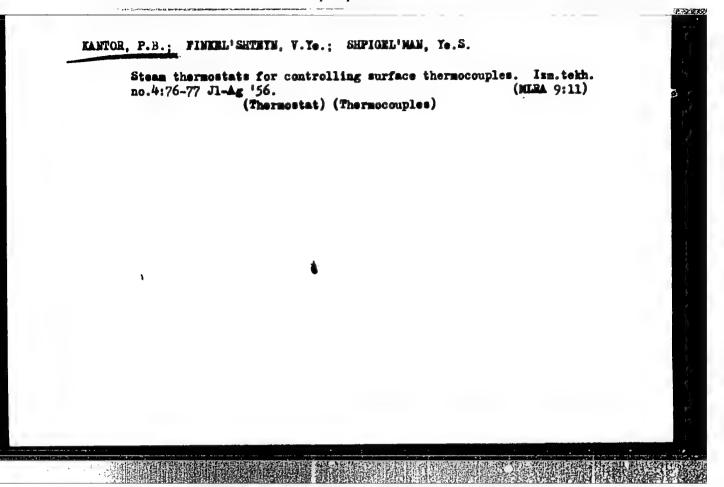
Lab. Ultrahigh Freguencies, Kheikor State Inst. Measurements

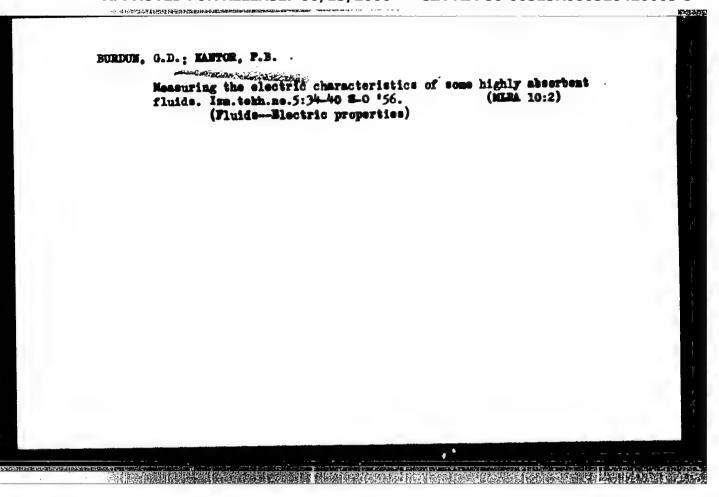
IAFOR, P.B.; ESTRIB, B.S.

A water thermostat with sutematic temperature control. Irm.tekh.

Bo.5150-52 8-0 '55.

(Thermostat)





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24 (8)

SOV/115-59-10-9/29

AUTHORS:

Estrin, B.S. and Kantor, P.B.

TITLE:

Measuring the Temperatures in the 300-500°C Range

PERIODICAL: Izmeritel'naya tekhnika, 1959, Nr 10, pp 21-22 (USSR)

ABSTRACT:

An ordinary semi-balanced thermometrical bridge for checking the technical thermometer in the 300-5000C range of temperatures was developed by the Khar'kovskiy gosudarstvennyy institut mer i izmeritel'nykh priborov (Khar'kov State Institute of Measures and Measuring Equipment). The electric circuit diagram of the bridge was designed by taking into consideration the nonlinear dependance of the resistance of a platinum thermometer on the temperature. If the 300-500°C range of temperatures is divided into groups of 10° (300°, 310°, 320° etc) then the formula

= f(t)

Card 1/3

where k is the number of degrees in a multiple of 10

SOV/115-59-10-9/29

Measuring the Temperatures in the 300-500°C Range

and n the number of degrees from l-l0, remains lincar in the given range with an error of $l0^{-4}{}^{\circ}\text{C}$. In the diagram (Fig 1) R1 and R2 are the constant bridge arms and Rt is the arm of the measuring bridge (the platinum thermometer of resistance). The variable bridge arm is composed of coupled resistance coils R3 and R4 forming a decade of "ten degrees", and of resistance coil R5 forming the decade of "single degrees". The values of R3, R4, and R5 resistances are so chosen that the R3 and R4 values remain constant in each "ten degree" decade and the variation of the R5 resistance, which by-passes the R3 resistance, corresponds to the variation of resistance of the thermometer when the temperature increases from k to k + $l0^{\circ}$ C. The diagram of the bridge for measuring temperature in the group $l-l0^{\circ}$ C is shown in Fig 2. If the movable contact of R5 resistance is in the position n (0 < n < l0) the element of the diagram with R3 and R5 resistances forming a triangle with R3, and Rn and R5 - Rn sides, can

Card 2/3

SOV/115-59-10-9/29

Measuring the Temperatures in the 300 - 500°C Range

be transformed into a star with the Ra, Rb and Rc rays, where

$$R_{a} = \frac{R_{n} (R_{5} - R_{n})}{R_{5} + R_{3}} \qquad R_{b} = \frac{(R_{5} - R_{n}) R_{3}}{R_{5} + R_{3}} \qquad R_{c} = \frac{R_{n} R_{3}}{R_{5} + R_{3}}$$

The values of R4 and R3 resistance for all temperatures in a multiple of 10 in the 300 - 500°C range can be obtained from the formula derived from the above formulae; the R5 value is accepted at 30 ohms. There are 2 diagrams and 3 Soviet references.

Card 3/3

06187 SOV/115-59-11-15/36

9 (2)

Dzyuba, A.S., Kantor, P.B.

AUTHORS:

A Semiconductor Thermocryostat for Checking Reference

TITLE: Thermometers

PERIODICAL: Izmeritel'naya tekhnika, 1959, Nr 11, pp 39-40

Checking reference thermometers in the range of + 20 to - 20°C is connected with considerable difficulties, ABSTRACT:

since there are no suitable and reliable thermostats for this temperature range. A thermocryostat was developed for checking reference thermometers at the Khar'kovskiy gosudarstvennyy institut mer i izmeritel'-

nnar kovskiy gosudars vennyy institute of Measures nykh priborov (Khar'kov State Institute of Measures and Measuring Instruments). Cold is produced by a semiconductor thermopile produced by the Leningrad Sovmiconductor thermopile narkhoz. The capacity of the semiconductor thermopile is adequate to keep the temperature at - 20°C when checking four thermometers simultaneously. A tempera-

ture regulator is used, which keeps automatically the

temperature at the required level. The temperature

Card 1/2

26592

S/185/60/005/003/007/020 D274/D303

24.5300 AUTHORS:

Kantor, P.B., Kysil', O.M. and Fomychov, Ye.M.

TITLE:

Measurements of enthalpy and heat capacity of silicon at temperatures of 1200 - 1900°K

PERIODICAL:

Ukrayins'kyy fizychnyy zhurnal, v. 5, no. 3, 1960,

358-361

The results are given of enthalpy and heat capacity measurements of silicon in the solid and liquid phase, for a temperature range of 1148 - 19150K. By means of the experimental data obtained, the coefficients are found of the interpolation equations for the enthalpy and heat capacity. The measurements were conducted by means of a calorimeter (consisting of a massive aluminum block) which was placed in a high-temperature vacuum-furnace. The thermostatic control of the calorimeter ensured a temperature stability to within #0.002°C. The temperature of the container with the specimen was measured by the optical pyrometer OP-48 to within \$200.

Card 1/3

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000520420003-5"

26592
Measurements of enthalpy...

\$/185/60/005/003/007/020 D274/D303

The silicon specimen, of a type especially designed for semiconductor instruments, had no impurities which could be detected by chemical or spectral analysis. The containers were made of quartz. The temperature rise in the calorimeter, after putting in the container, was measured by a platinum-resistance thermometer and a special thermometric bridge. In all, 42 measurements were made. From experimental data, and using the method of least squares, the coefficients of the equations for enthalpy and heat capacity were found:

 $H_{\rm T} - H_{298,16} = 5.724T + 3.648 \cdot 10^{-4}T^2 - 2078 \text{ cal/g.atom}$ (1) $C_{\rm p} = 5.724 + 7.296 \cdot 10^{-4}T \text{ cal/g.atom}$ (1a)

(between 1200 - 1690°K); $H_T = H_{298,16} = 6,018T + 2,983 \cdot 10^{-4}T^2 + 9555 \text{ cal/g.atom}$ (2) $G_p = 6,018 + 5,966 \cdot 10^{-4}T \text{ cal/g.atom}$ (2a) (between 1690 - 1915°K)

The mean square error in the determination of the coefficients was

Card 2/3

26592 Measurements of enthalpy...

S/185/60/005/003/007/020 D274/D303

0.4 - 0.7%. The experimental results are plotted on a graph, together with the results obtained by other authors, M.O. Serebrenikov, I.V. Gel'd (Ref. 1: DAS, v. 47, 6, 1021, 1952) and M. Olette, (Ref. 2: Gompt. Rend., 8, 244, 1033, 1957). A comparison of results shows that the enthalpy data agree to within 1% with those of Refs. 1 and 2. The heat capacity for silicon in the liquid state was found to be nearly constant = 7.1 cal/g.atom. The melting point was found to be 1690 ±40K, and the heat of melting - 11950 ±180 cal/g.atom. There are 1 figure, 2 tables and 6 references: 2 Soviet-bloc and 4 non-Soviet-bloc. The references to the English-language publications read as follows: K.K. Kelley, U.S. Contributions to the Data on Theoretical Metallurgy, Bull, 476, 1949; M.L. Gayler, Nature, 142, 478, 1938.

ASSOCIATION:

Khar'kivs'kyy derzhavnyy instytut mir ta vymiryuval' nykh pryladiv (Khar'kov State Institute of Measures

and Measuring Instruments)

SUBMITTED:

September 16, 1959

Card 3/3

S/126/60/010/006/006/022 E193/E483

//.3600 also 2308
AUTHORS: Kantor P.B

Kantor, P.B., Krasovitskaya, R.M. and Kisel', A.N.

TITLE:

Determination of Enthalpy and Specific Heat of Beryllium in the 600 to 2200°K Temperature Range

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol.10, No.6,

pp.835-837

TEXT: Using twice-distilled beryllium, the present authors measured the enthalmy H of specimens of this match.

measured the enthalpy H of specimens of this metal in the solid state (600 to 1560°K), in the region of the solid liquid transformation, and in the liquid state (1560 to 2166°K). From the experimental data, the coefficients of the equations for H and specific heat Cp of beryllium, were determined by the method of consecutive approximations. The appropriate equations for the solid state are given by

$$H_T - H_{298.16} = 4.322T + 1.09 \times 10^{-3} T^2 - 1490 \text{ cal/g-at}$$
 (1)

$$C_p = 4.322 + 2.18 \times 10^{-3} \text{ T cal/°C g.at}$$
 (1a)

Card 1/2

(600 - 1560°K)

5/126/60/010/006/006/022 E193/E483

Determination of Enthalpy and Specific Heat of Beryllium in the 600 to 2200 K Temperature Range and for the liquid state by

 $H_T - H_{298.16} = 6.079T + 2.569 \times 10^{-4} T^2 + 1327 \text{ cal/g,at}$ (2)

 $C_D = 6.079 + 5.138 \times 10^{-\frac{1}{2}} \text{ T cal/}^{\circ}\text{C g,at}$ (2a)

(1560 - 2200°K)

The melting point of beryllium was found to be 1557 \pm 5°K, the latent heat of melting being 3520 ± 80 cal/g at. The results of the present investigation were in close agreement with those obtained by L.Losanna (Ref.3). There are 1 figure, 1 table and 7 references: 3 Soviet and 4 non-Soviet.

ASSOCIATION: Khar'kovskiy gosudarstvennyy institut mer j

izmeritel'nykh priborov (Khar'kov State Institute

of Measures and Measuring Instruments)

SUBMITTED: February 17, 1960

Card 2/2

21369

5/126/61/011/004/019/023 E111/E435

18.8100

1418 1413, 1454

Lazareva, L.S., Kantor, P.B. and Kandyba, V.V.

AUTHORS:

Enthalpy and Specific Heat of Molybdenum in the

TITLE

Temperature Range 1200 to 2500 K

PERIODICAL: Fizika metallov i metallovedeniye, 1961, Vol.11, No.4,

pp.628-629

In this work the authors describe their determination with an error of under 1% of the enthalpy of molybdenum at 1154 to TEXT: Published data (Ref.1-3) on this are scanty and mostly limited to top temperatures of 1400°K. The mixing method was 2462°K. applied using the high-temperature vacuum installation which has already been described by some of the authors (Ref. 4,5). Temperature was measured with the type ON-48 (OP-48) optical pyrometer described by Kandyba (Ref.6). The specimen, 0.2 mm thick molybdenum foil with 0.02% impurities made by the Moskovskiy zavod tverdykh splavov (Moscow Carbide Manufacturing Plant), was The whole furnace-calorimeter contained in a quartz capsule. system was filled with argon at 12 to 14 mm Hg. The temperature rise was measured with an accuracy of 0.001°C with a platinum resistance thermometer. From the experimental data the following Card 1/2

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S/126/61/011/004/019/023 E111/E435

Enthalpy and Specific Heat ...

equations are obtained

$$H_T - H_{298.16} = 4.981 T + 8.795 \cdot 10^{-4} T^2 - 1460 \text{ cal/g-atom}$$
 (1)

$$C_n = 4.981 + 17.59 \cdot 10^{-4} \text{ T cal/}^{\circ} \text{ g-atom, } (1150 - 2500 ^{\circ}\text{K})$$
 (1a)

The specific-heat values for 1100 to 1300°K are 1 to 2% and about 10% higher than those, respectively, of Kelley (Ref.2) and of Redfield and others (Ref.1). There are 2 tables and 7 references: 3 Soviet and 4 non-Soviet.

ASSOCIATION: Khar'kovskiy gosudarstvennyy institut mer i

izmeritel'nykh priborov (Khar'kov State Institute of

Measures and Measuring Instruments)

SUBMITTED: November 14, 1960

Card 2/2

2631.1 \$/076/61/035/007/011/019 B127/B102

15.2630

Krasovitskaya, R. M., Kantor, P. B., Kan, L. S.,

Kandyba, V. V., Kutsyna, L. M., and Fomichev, Ye. N.

TITLE:

AUTHORS:

Determination of enthalpy and specific heat of boron oxide

in the range 1000-2200°K

PERIODICAL:

Zhurnal fizicheskoy khimii, v. 35, no. 7, 1961, 1499-1501

TEXT: The authors studied a sample prepared by the Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D. I. Mendeleyeva (All-Union Scientific Research Institute of Metrology imeni D. I. Mendeleyev). In order to dry the preparation which contained 0.01-0.02% Mg and water, it

was slowly heated within 7-8 hr to 600-700°C at a pressure of 10⁻² mm Hg. It was kept for about 5 hr at this temperature. A formation of bubbles was initially observed which ceased during heating. The sample was then heated up to 1000°C, during one hour, and looked then like colorless transparent glass. Investigation was carried out by means of a massive calorimeter

Card 1/4

26341 \$/076/61/035/007/011/019 B127/B102

Determination of enthalpy and specific ...

which consisted of an aluminum block 30 kg with lateral Pt-resistance thermometer. The aluminum block was hermetically enclosed in a vessel which was connected with a vacuum system. Cooling was performed by a double water jacket kept at $25 \pm 0.05^{\circ}$ C. A vacuum furnace was used for heating, consisting of an electric heater (a graphite tube of 600 mm length and 45 mm diameter), which was surrounded by coaxially arranged cylindric acreens of graphite, tantalum, molybdenum and steel. The temperature was measured by means of a Pt-Rh-Pt thermocouple and an optical $30\Pi-51$ (EOP-51) pyrometer. Visual readings were made through a window in the furnace. The error of temperature measurement did not exceed 0.1% up to 1700° K and 0.3% up to 2300° K. The apparatus was evacuated to 10^{-4} mm Hg and then filled with argon (15-20 mm Hg) during the experiment. The ampuls were made from platinum which does not react with B_2O_3 up to 1650° K. Molybdenum was also suitable. At temperatures above 1600° K the argon pressure was increased to 600-700 mm Hg. The results of measurement are summarized in the Table. The following interpolation formula was used: $H_T = H_{298.16} = 30.54T = 11920$ cal/mole and $C_p = 30.54$ cal/mole·degree ($1000-2150^{\circ}$ K). There are 1 table and

Card 2/4

26341 \$/076/61/035/007/011/019

B127/B102

Determination of enthalpy and specific ...

9 references: 6 Soviet-bloc and 3 non-Soviet-bloc. The most recent references to English-language publications. read as follows: Ref. 4: K. Keller, Contributions to the data of theor. Metallurgy, X, 1949. Ref. 2: I. C. Southard: J. Amer. Chem. Soc., 63, 3147, 1941.

ASSOCIATION: Institut mer i immeritel nykh priborov (Institute of

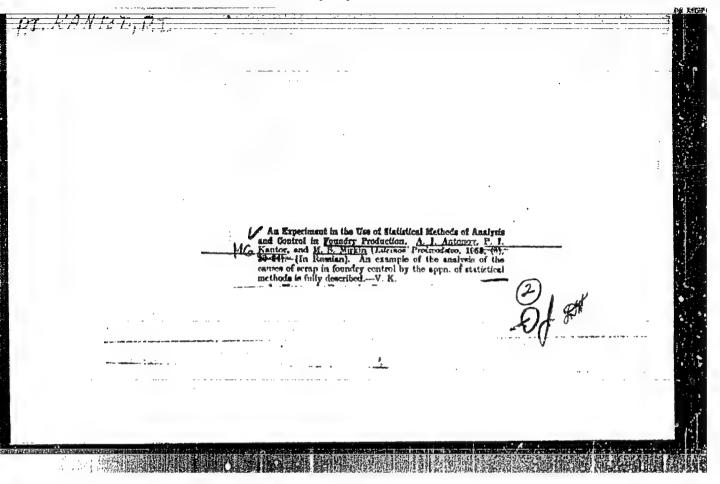
Measures and Measuring Instruments)

SUBMITTED: October 17, 1959

Card 3/4

FOMICHEV, Ye.N.; KANDYBA, V.V.; KANTOR, P.B.

Calorimetric unit for determining the enthalpy and heat capacity of substances. Izm.tekh. no.5:15-18 My '62. (MIRA 15:6) (Calorimeters)



-KANICK, HL

SHUB, I.Ye., kandidat tekhnicheskikh nauk; SHORYGIMA, N.V., kandidat khimicheskikh nauk; KAMTOR, P.I., inshener.

Gluing together the two halves of the shell mold, Lit.proisv.

no.ll:2-5 N *56. (MAA 10:1)
(Shell molding (Founding)) (Gluing)

AREUZOV, Boris Afanas yevich; KANTOR, P.I., red.

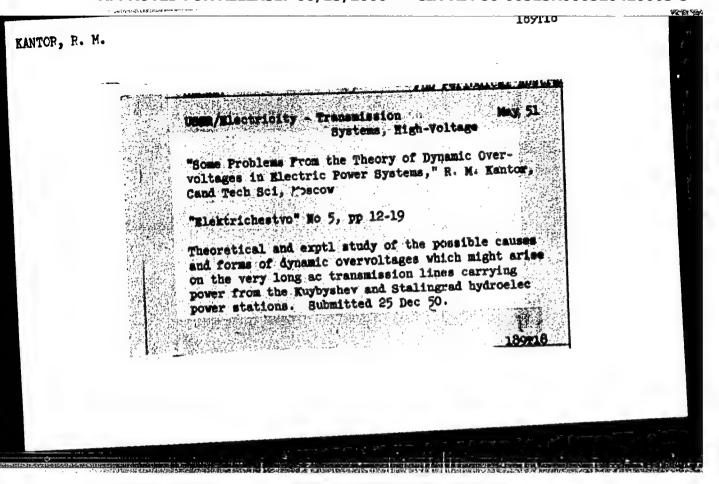
[Efficient methods of preparing coated mixtures]
Ratsional'nye sposoby prigotovleniia plakirovannykh smesei. Leningrad, 1965. 23 p. (MIRA 18:10)

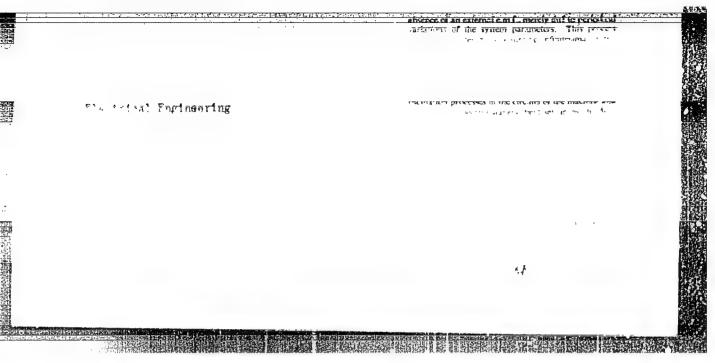
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BEREZOVSKIY, V.I.; KANTOR, R.I.; MATUSEVICH, M.A.

Characteristics of building products made of phosphoanhydrite cement. Stroi. mat. 10 no.2:30-32 F *64.

(MIRA 17:6)





ROLYAS II, Ye.A., kandidat tekhnicheskikh nauk; KAFFOR, R.M., kandidat tekhnicheskikh nauk

Using an electric transmission in agricultural machines.

Sel'khosmashina no.6:31-32 Je '55. (NIRA 8:5)

(Agricultural machinery)

Kantor R.M.

PHASE I BOOK EXPLOITATION

730

Dolginov, Aleksandr Iosifovich

Rezonans v elektricheskikh tsepyakh i sistemakh (Resonance in Electric Circuits and Systems) Moscow, Gosenergoizdat, 1957. 327 p. 7,000 copies printed.

Ed.: Kantor, R.M.; Tech. Ed.: Voronin, K.P.

PURPOSE: The monograph is intended for research institute personnel and design engineers.

COVERAGE: The theory of resonance in electric circuits and systems is discussed. Theoretical and experimental results obtained from the study of operating conditions at resonance are generalized, and an analysis of various forms of resonance observed in electric circuits and systems is presented. Problems connected with parametric resonance of various forms are also covered.

Card 1/12.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000520420003-5"

Resonance in Electric Circuits and Systems

730

The bulk of the theoretical and experimental investigations, on which this book is based, was carried out at the laboratory of physical modeling of the Moscow Power Institute. Some of these investigations were presented by the author at conferences and seminars of the Moscow Power Institute, the All-Union Correspondence Power Institute, the Leningrad Polytechnic Institute, and the Scientific Research Institute of Direct Current. A part of the research in ferroresonance in electric circuits was done by the Chair of Electrical Apparatus of the Moscow Power Institute. The author thanks the director in charge of the electrodynamic model of the Moscow Power Institute, Professor V.A. Venikov, Doctor of Technical Sciences; Professor D.A. Federov, and Professor M.A. Babikov, Doctor of Technical Sciences, Head of Electrical Apparatus Chair of the Moscow Power Institute, for their help in a number of investigations whose results appear in this book. Valuabe advice was given to the author by Professor Ya. Z. Tsypkin, Doctor of Technical Sciences, who reviewed the book and R.M. Kantor, Candidate of Technical

Card 2/12

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000520420003-5

Resonance in Electric Circuits and Systems 730						
Sciences, the editor. There are 74 references, 55 of which are Soviet (including 2 translations), 14 English, 4 German, and 1 French.						
TABLE OF CONTENTS:						
Foreword	3					
Introduction	9					
SECTION I. RESONANCE IN LINEAR SINGLE-PHASE AND THREE-PHASE ELECTRIC CIRCUITS WITH CONSTANT PARAMETERS						
Ch. I. Resonance in Single-phase Electric Circuits 1. Resonance in electric circuits with one degree of freedom						
Card-3/42						

29625 S/142/61/004/003/006/016 E192/E382

9.2572 (1144)

AUTHOR: Kantor, R.M.

TITLE: Theory of oscillations in parametric resonators (parametrons) with ferrite cores

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, v. 4, no. 3, 1961, pp. 285 - 299

TEXT: The fundamental theory of parametric excitation of electrical oscillations was published a few decades ago by the Soviet physicists, A.A. Andronov, L.I. Mandel'shtam, N.D. Papaleksi and their collaborators. The parametric resonance was investigated experimentally on various systems, including the parametric resonator shown in Fig. 1. A parametric resonator was developed at the High-frequency Physics Laboratory in Leningrad and was first mentioned in a lecture by N.D. Papaleksi in 1931 (Ref. 2 - Izd.vo AN SSSR, 1948, 10-14; November, 1931, Sb.1), In the system of Fig. 1, the transformer cores 1 and 2 are made of sheet steel and the secondary windings are connected against each other in order to eliminate the frequency 2f from the resonant Card 1/1/6

29625 S/142/61/004/003/006/016 E192/E382

Theory of oscillations ...

circuit. The parametric resonance effect was described by E. Goto (Ref. 20 - PIRE, 1959, no. 8, 1304) who published his work about 20 years later without mentioning the Soviet authors. The phenomena in a parametric resonator with nonlinear inductance can be described by a differential equation where the magnetic characteristic of the parametron is expressed by a third-degree polynomial. It is shown, however, that such a description is inadequate and that a fifth-degree polynomial is more satisfactory. A parametron based on the circuit of Fig. 1 was investigated experimentally. The load of the system was a resistance R connected across the capacitance C. The cores of the inductive coils were in the form of toroids having dimensions $7 \times 4 \times 2$ or $5 \times 3 \times 1.8$ mm and were made of ferrites of different types. The measurements were carried out at frequencies between 100 and 1 000 kc/s. At a given magnetizing current i_0 and parameters R and C, the behaviour of a parametron is described by its threshold and resonance characteristics. The threshold characteristics of the system are given in Figs. 8, where the minimum excitation Card 2/76

29625 \$/142/61/004/003/006/016 E192/E382

Theory of oscillations

current i_{2f} necessary for obtaining the parametric resonance is plotted as a function of the excitation frequency 2f. The resonance curves of the system as a function of the excitation frequency were also measured; these represent the voltage u_c developed across the condenser for various values of i_c and i_{2f} . An attempt is made to analyse the behaviour of the system by using the basic Mandel'shtam--Papaleksi equation. The behaviour of a resonant circuit can be described by:

$$\frac{d^2 \psi}{dt^2} + \frac{1}{RC} \frac{d \psi}{dt} + \frac{i}{C} = 0$$
 (8)

where the flux linkage Ψ is a periodic function of time and a nonlinear function of current i, which is described by

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X

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Theory of oscillations

$$Ψ = L_0(1 + 2h \sin 2νt)(1 + λ_1i^2 + λ_2i^4)i,$$
 $λ_1 < 0, λ_2 > 0.$

The final expression is in the form of:

$$\frac{d^2 \Psi}{dt^2} + \frac{1}{RC} \frac{d\Psi}{dt} + \omega_0^2 (1 + \kappa_1 \Psi^2 + \kappa_2 \Psi^4 - 2h \sin 2\pi t) \Psi = 0 \quad (9)$$
Sign $\kappa = -\sin \pi \lambda$.

By introducing the notation of Eq. (10) and averaging over $\Upsilon = Vt$, the simplified equations of the system are:

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Theory of oscillations

$$2\frac{dx}{dt} = (\gamma - \delta)x + \alpha y;$$

(11) .

$$2\frac{dy}{d\tau} = -\alpha x - (\gamma + \delta)y$$

From Eqs. (11) it follows that the steady-state amplitudes are defined by:

 $\gamma^2 = \alpha^2 + \delta^2 \tag{12}$

where γ is the modulation coefficient. The above equations are employed to investigate the stability of the system and its threshold and the resonance characteristics. From the analysis and the experiments, it is concluded that the theory developed by the Soviet scientists about thirty years ago could not adequately explain the resonance characteristics in parametric amplifiers. This was primarily due to the fact that a

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39625 S/142/61/004/003/006/016 E192/E382

Theory of oscillations

third-degree polynomial was used to approximate the magnetization curve. By employing a fifth-degree polynomial approximating the nonlinearity of the resonator, all the experimentally observed resonance and threshold characteristics of the parametrons with ferrite cores can be satisfactorily explained. There are 13 figures and 21 references: 20 Soviet-bloc and 1 non-Soviet-bloc which is quoted in the text.

ASSOCIATION:

Kafedra teoreticheskikh osnov elektrotekhniki Moskovskogo energeticheskogo instituta Drinciples of

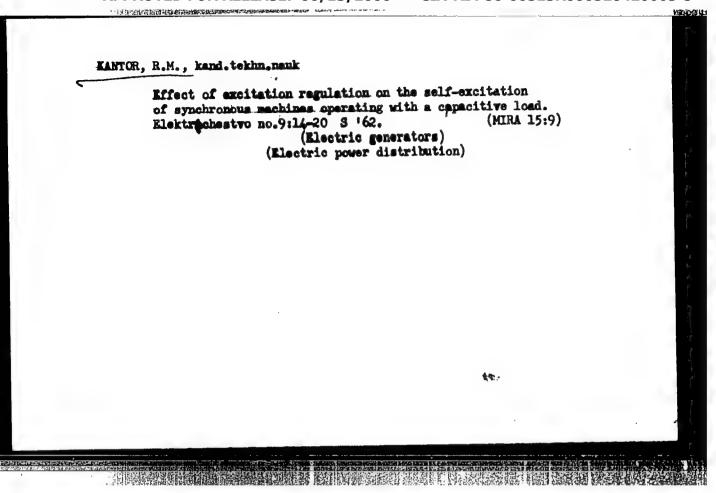
(Department of Theoretical Principles of Electrical Engineering of Moscow Power-engineering

Institute)

SUBMITTED:

December 8, 1960

Card 6/7/



S/142/62/005/003/006/009 E140/E435

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Kantor, R.M.

AUTHOR:

Generalized linearization methods in the theory of nonlinear oscillations in parametric resonators

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Radiotekhnika, v.5, no.3, 1962, 356-367

The present article follows the author's previous study TEXT: of the Goto parametron (Izv. VUZ Radiotekhnika, v.4, no.3, 1961, There, a Mathieu type equation was solved. In the present work a "complete" system of differential equations is solved by methods of "generalized linearization", The author terms his first effort "simplified", the present work "rigorous". The ferrite characteristic is approximated by an odd polynomial of The method gives the generalized detuning and the fifth degree. generalized depth of modulation as functions of the sum and difference magnetic fluxes in the two cores of the oscillator. These two functions explain fully the resonant curves of parametric oscillators as well as of arbitrary ferroresonant Conditions are found for discontinuities in subharmonic systems. Card 1/2

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Generalized linearization ...

It is found that the condition for formation of auto-modulation is closeness of the oscillatory system to There is 1 figure. conservative.

ASSOCIATION: Kafedra teoreticheskikh osnov elektrotekhniki,

Moskovskiy energeticheskiy institut

(Department of Theoretical Fundamentals of

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Institute)

October 20, 1961 SUBMITTED:

Card 2/2

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KANTOR, R.M., kand.tekhn.nauk

Use of Gol'dfarb's method for calculating transients in nonlinear circuits. Blektrotekhnika 35 no.2:43-45 F '64. (MIRA 17:3)

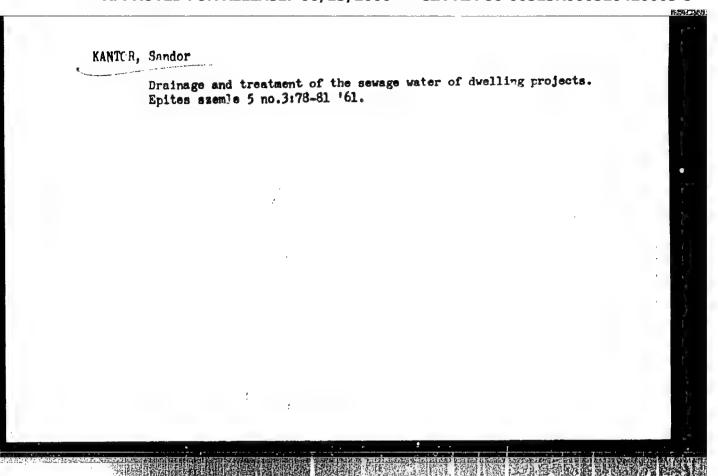
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Kantor, S.

Dwelling-construction problems for settlements which do not have public utilities. p. 50.

EPITESUGYI SZEMLE. Budapest, Hungary. No. 2, 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 1, Jan. 1960. Uncl.



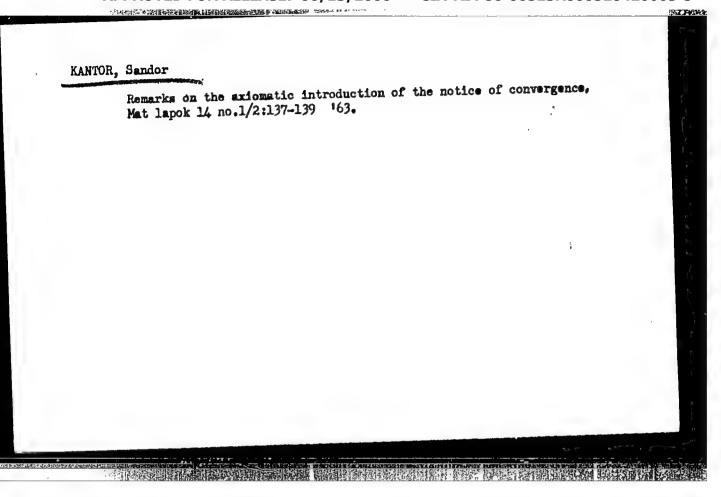
EGYEDI, Laszlo; LITVAI, Tamas; KANTOR, Sandor

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1. Epitestufomanyi Intezet tagozatvezetoje (for Egyedi and Litvai). ?. Epitestudomanyi Intezet tudomanyos fomunkatarsa (for Kantor).

KANTOR, Sandor, dr., egyetemi adjunktus

The Farkas Bolyai theorem on the "finite area equality." Term tud kosl 8 no.3:142-143 Mr '64.



L 13 H = 174 COLYOPH OF STEEDING AND ACCOUNT ANTINATION CONTINUES.	Trace Fr
KHATOK, SH.	Ţ, i
Principles of the neutron log theory. Prikl.geofiz. no.13: 3-22 '55. (MLRA 8:10) (Oil well logging) (Radioactivity)	The state of the s

EHOLIN, A.I.; KANTOR, S.A.; LARIONOV, V.V.

Some features of processing and interpreting data on radiation well logging related to statistical characteristics of previously investigated processes. Trudy MMI no.15:227-236 '55. (MLMA 9:8)

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15-57-1-994

Referativnyy zhurnal, Geologiya, 1957, Nr 1, Translation from:

p 157 (USSR)

Kholin, A. I., Kantor, S. A., Larionov, V. V., AUTHORS:

Barsukov, O. A.

The Influence of the Size of Probe on the Results of TITLE:

Measurements by the Neutron Gamma Method (K voprosu o vliyanii razmera indikatora na rezul'taty izmereniy

neytronnym gamma-metodom)

Tr. Mosk. neft. in-ta, 1955, Nr 15, pp 236-246. PERIODICAL:

In association with the ultimate size of a probe for ABSTRACT:

gamma radiation during radiometric investigation of drill holes, the intensity of secondary gamma radiation Irec is distinguished from the theoretical Iorec calculated on the assumption that the indicator is

accurate, in the following relation:

 $I_{rec} = I_{o rec} \frac{2}{\mu a} sh(\mu a/2),$

Card 1/2

15-57-1-994

The Influence of the Size of Probe on the Results (Cont.)

where μ is a coefficient depending on the hydrogen content of the medium, a is the length of the probe, and sh is the hyperbolic sine. To determine quantitatively the porosity by intensity of secondary gamma radiation, it is expedient to use a probe of minimum length or to introduce a correction to the value of the recorded intensity for the length of the probe. Curves are supplied to show the relationship between the correction factor and the value of μ produced. The ultimate length of the probe leads to a distorted actual length of the sonde (μ by the neutron gamma method, calculated from the computation of 1 between the source and the middle of the indicator. To obtain an approximate calculation of the actual length of the sonde, the following formula is recommended: μ length of the sonde, the following formula is recommended: μ length of neutrons to the first and second ends of the indicator (counter). Card 2/2

KANTOR . S. A.

Radiation logg Snan.eila 30 no.8:18-21 Ag 55. (MERA 8:11) (c. "all legging, Radiation)

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"Portable and Economical Instruments for the Radioactive Survey Methods," Utilization of Radioactive Isotopes & Emanations in the Petroleum Industry (Symposium), Min. Petroleum Industry USSR, 1957.

Results of the Joint Session of the Technical Council of Min of the Petroleum Industry USSR and Soviet Sci and Technical Association, Moscow 14-19 Mar 1956.

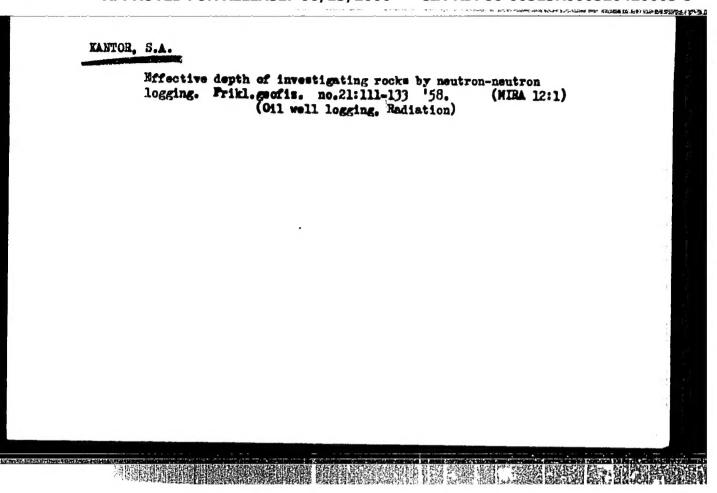
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KANTOR, S. A.

"Depth of Penetration in Rocks in Neutronneutron Logging Tests"

Prikladnaya geofisika; sobornik statey, vyp. 21 (Applied Geophysics; Collection of Articles, Nr 21) Moscow, Gostoptekhizdat, 1958. 221 p.



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KANTOR, S.A.

Depth reached in exploring rocks by pulse neutron logging with a thermal neutron source. Prikl. geofiz. no.29:174-186 '61.

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(Radioactive prospecting)

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